Nektar Therapeutics Announces Initiation of a Phase 1b Clinical Study of NKTR-358, a First-in-Class Regulatory T Cell Stimulator, in Patients with Systemic Lupus Erythematosus

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SAN FRANCISCO, May 8, 2018 /PRNewswire/ -- Nektar Therapeutics (NASDAQ: NKTR) today announced that it has commenced dosing patients with systemic lupus erythematosus (SLE) in a Phase 1b clinical study evaluating NKTR-358, a first-in-class regulatory T cell stimulator. NKTR-358 selectively stimulates the proliferation and activation of regulatory T cells (Tregs) in the body in order to restore the body's self-tolerance mechanisms. Unlike immunosuppressant medicines that treat the symptoms of autoimmune disease by inhibiting the entire immune system which can cause unwanted side effects, NKTR-358 is designed to correct the underlying immune system dysfunction found in patients with immune disorders such as SLE.

"NKTR-358 has the potential to address the immune system imbalance that underlies autoimmune diseases such as lupus by driving the expansion and functional activity of Tregs to restore immune homeostasis in the body," said Brian Kotzin, M.D., Senior Vice President, Clinical Development and NKTR-358 Program Lead at Nektar Therapeutics. "We are excited about the start of the clinical study and the potential of NKTR-358 to provide a positive benefit for patients with SLE."

The Phase 1b study is a double-blind, randomized, placebo-controlled study to evaluate the safety, tolerability, pharmacokinetics and immunological effects of multiple ascending doses of NKTR-358 in approximately 50 patients with systemic lupus erythematosus (SLE). The study will also evaluate the effects of NKTR-358 on disease activity in SLE patients.

The Lupus Foundation of America estimates that 1.5 million Americans, and at least five million people worldwide, have a form of lupus. Systemic lupus erythematosus (SLE) accounts for 70% of all cases of lupus.[1] SLE is a chronic autoimmune disease that can affect the joints, skin, brain, lungs, kidneys, and blood vessels, and cause widespread inflammation and tissue damage in the affected organs.

A progressive imbalance of regulatory T cells relative to conventional T cells is shared by many autoimmune diseases, including SLE. During disease flares, the number of circulating Tregs decreases in SLE patients and their immune suppressive function is impaired contributing to a loss of self-tolerance, the production of autoantibodies, and development of disease manifestations.[2,3]

In July 2017, Nektar entered into a strategic collaboration with Eli Lilly and Company to develop and commercialize NKTR-358 in multiple autoimmune conditions.

About NKTR-358

Autoimmune diseases cause the immune system to mistakenly attack healthy cells in a person's body. A failure of the body's self-tolerance mechanisms enables the formation of the pathogenic auto-reactive T lymphocytes that conduct this attack. NKTR-358 works by optimally targeting the interleukin-2 (IL-2) receptor complex in order to stimulate proliferation and activation of Tregs. By increasing the number of Tregs, the pathogenic auto-reactive T cells can be controlled and the proper balance of effector and Treg cells can be achieved to restore the body's self-tolerance mechanisms.

In preclinical studies, NKTR-358 has demonstrated that it could suppress antigen-driven inflammation in a model of cutaneous hypersensitivity.[4] NKTR-358 has also shown that it reduces markers of progression in a mouse model of SLE.[4]

NKTR-358 is being developed as a once or twice-monthly self-administered injection for a number of auto-immune diseases.

About Nektar Therapeutics

Nektar Therapeutics is a research-based, development-stage biopharmaceutical company whose mission is to discover and develop innovative medicines to address the unmet medical needs of patients. Our R&D pipeline of new investigational medicines includes treatments for cancer, autoimmune disease and chronic pain. We leverage Nektar's proprietary and proven chemistry platform in the discovery and design of our new therapeutic candidates. Nektar is headquartered in San Francisco, California, with additional operations in Huntsville, Alabama and Hyderabad, India. Further information about the company and its drug development programs and capabilities may be found online at http://www.nektar.com.

Cautionary Note Regarding Forward-Looking Statements

This press release contains forward-looking statements which can be identified by words such as: "potential," "design," "can," "provide," "may," "will" and similar references to future periods. Examples of forward-looking statements include, among others, statements we make regarding the expected benefits of NKTR-358, the ability to obtain useful data from the Phase 1b clinical study of NKTR-358, and the future clinical development plans for NKTR-358. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, anticipated events and trends, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results may differ materially from those indicated in the forward-looking statements. Therefore, you should not rely on any of these forward-looking statements. Important factors that could cause our actual results to differ materially from those indicated in the forward-looking statements include, among others: (i) NKTR-358 is in early-stage clinical development and there are substantial risks that can unexpectedly occur for numerous reasons including negative safety and efficacy findings in the Phase 1b clinical study notwithstanding positive findings in prior studies; (ii) clinical study outcomes, including the Phase 1b clinical study outcome of

NKTR-358, remain very unpredictable and it is possible that a clinical study could fail due to efficacy, safety or other important clinical findings; (iii) the timing of the commencement or end of clinical trials and the availability of clinical data may be delayed or unsuccessful due to regulatory delays, slower than anticipated patient enrollment, manufacturing challenges, changing standards of care, evolving regulatory requirements, clinical trial design, clinical outcomes, and competitive factors; (iv) scientific discovery of new therapeutics is an inherently uncertain process and the future success of applying our technology platform to potential new drug candidates (such as NKTR-358) is therefore highly uncertain and unpredictable; (v) patents may not issue from our patent applications for NKTR-358, patents that have issued may not be enforceable, or additional intellectual property licenses from third parties may be required; and (vi) certain other important risks and uncertainties set forth in our Annual Report on Form 10-K for the year ended December 31, 2017 filed with the Securities and Exchange Commission on March 1, 2018. Any forward-looking statement made by us in this press release is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

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